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Abstract Volume

Oral presentation

Upper Triassic dinosaur tracks from the Dolomites: new dating and material

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The Dolomia Principale formation is a 1000-m-thick carbonate platform organized in peritidal shallowing-upwards cycles. Since 1985, when the first Italian dinosaur trackways were discovered on a block at Mt. Pelmetto, it has revealed to us many other sites bearing numerous tracks of tetrapods, often of dinosaurs. All these footprints, with the exception of the Mt. Pasubio, occur in isolated blocks, which only seldom can be set back to their original stratigraphical position, thus preventing accurate dating. The discovery of conodonts on the Mt. Pasubio site allowed a precise dating of the surface as uppermost Alaunian to lower Sevatian (Middle-Upper Norian), encouraging the research of microfossils in the isolated blocks as well. Unfortunately, no conodonts were found in the fallen boulders. Nonetheless, some holothurian sclerites, despite their weak stratigraphical resolution, revealed an early Norian age, which matches both the supposed stratigraphical position and the footprint-based dating of the isolated blocks of Mt. Pelmetto. Moreover, the holothurian sclerites permitted to constrain the new blocks discovered on Mt. Moiazza as roughly late Carnian/early Norian age, comparable to the Mt. Pelmetto boulders.

Thus, while seeking for new and more precise biostratigraphical data, it is possible to recognize at least two periods when dinosaurs could have walked along the Dolomia Principale tidal-flats, that is, the late Carnian/early Norian (Mt. Pelmetto, Mt. Moiazza) and the middle/late Norian (Mt. Pasubio).